# Python Practice Assignments

## Assignment 1: Student Grades Management

Create a Python program that stores student names and their grades using a list of tuples. The program should allow adding new students, updating grades, and displaying all students with their grades.

### Expected Output:

- Add a student with a grade  
- Update an existing student’s grade  
- Display all students with their grades

## Assignment 2: Employee Record System

Develop a program that manages employee records using a dictionary. Each employee should have an ID as the key and a dictionary as the value storing their name, department, and salary.

### Expected Output:

- Add a new employee  
- Update an employee’s salary  
- Display all employee records

## Assignment 3: Product Inventory

Create a program that maintains an inventory of products using tuples. Each product should have a name, category, and price. Ensure products cannot be modified after creation but allow viewing them.

### Expected Output:

- Display all products with their details  
- Attempting to modify a product should raise an error

## Assignment 4: Unique Visitors Tracker

Write a program that keeps track of unique website visitors using a set. The program should allow adding new visitors and checking if a user has already visited.

### Expected Output:

- Add a visitor  
- Check if a visitor has already visited  
- Display the total number of unique visitors

## Assignment 5: Bank Account System (OOP)

Create a Python program using classes to simulate a bank account system. Implement methods for depositing, withdrawing, and checking balance. Ensure proper encapsulation of account balance.

### Expected Output:

- Create a new account with an initial balance  
- Deposit money  
- Withdraw money (ensure sufficient balance)  
- Display account details